



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/518,551 | 12/22/2004 | Hea-Chun Lee | 6192.0512.US | 8425 |

32605 7590 11/03/2006

MACPHERSON KWOK CHEN & HEID LLP
2033 GATEWAY PLACE
SUITE 400
SAN JOSE, CA 95110

EXAMINER

MAY, ROBERT J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2875

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/518,551

Applicant(s)

LEE, HEA-CHUN

Examiner

Robert May

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/24/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>12/22/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

Claims 9 and 19 are objected to because on line 2, "a chamber" should be replaced by –a chamfer–.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 5, 6, 11, 15, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Torihara (6,609,807).

In regard to Claim 1, Torihara discloses in Figure 1 a light guide plate 3, comprising an incident face (vertical face of light guide 3, shown not labeled adjacent to light sources 2), a light reflecting face 4 which reflects the light towards a light exiting face 3a, a light reflecting member 4 for covering the light incident face forming a light receiving space that is defined by the light reflecting member and incident face, at least two lamps 2 spaced apart from each other by a second distance wherein the sum of the distance between the lamps 2 and both diameters of the lamps are shown to be greater

Art Unit: 2875

than the first distance being the width of the incidence face, and a receiving container 16 for receiving the light guide plate 3, and light reflecting member 4.

In regard to Claims 5 and 15, Torihara discloses in Figure 1, the two lamps 2 as having the same diameter.

In regard to Claims 6 and 16, Torihara discloses in Figure 1, the lamps including a first lamp 2 and a second lamp 2 wherein a first lamp is shown to be positioned at a first edge of the light incident face and the reflecting face 4 and the second lamp disposed near a second edge diagonally opposite to the first edge.

In regard to Claim 11, Torihara further discloses in Figure 1, a liquid crystal display panel 6 which faces the light exiting face 3a and is received by the container 16, and a chassis 13 where a first portion thereof presses against an edge of the liquid crystal display panel 6 (firmly held to the LCD panel 6 Cols 6-7, 67+).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 9, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torihara in view of Watai (5,788,356).

In regard to Claims 7 and 17, Torihara fails to disclose the light reflecting member as including a chamfer disposed at the second edge, but Watai discloses in Figure 12, a chamfer (shown but not labeled) located at an edge of the reflecting

Art Unit: 2875

member for reflecting the light towards the incidence face, but fails to show the chamfer as being located at the second edge as claimed being diagonally opposite to the incident and reflecting face edge. Variations in reflector shape, such as the chamfer of Watai, are well known methods of improving the light reflection in backlight assemblies such as that of Torihara. Accordingly, it would have been obvious to locate a chamfer where needed including at the second edge, on the backlight of Torihara.

In regard to Claims 9 and 19, Torihara fails to disclose a chamfer disposed at the fourth edge, however Watai discloses in Figure 12, a backlight assembly with a reflecting member 40 having a chamfer (flat surface indicated by leader line) at a fourth edge diagonally opposite to the third edge for directing the light towards the incidence face. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the reflecting member of Torihara with the chamfer of Watai to direct the light towards the incident face.

Claims 2-4, and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torihara in view of Imai (5,253,089). Torihara fails to disclose a groove in the incident face having a cross section that is V-shaped or curved. Imai discloses in Figures 1 and 2 a backlight assembly with light guide 30,32 having a groove at the incident face with a V-shaped 33 or curved shape 31 cross section so that a larger section of the incident face is contacting or exposed to the light source 17 (Col 3, lines 22-35). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the incident face of Torihara with the

Art Unit: 2875

curved or V-shaped grooves of Imai so that a majority of the incident face is in contact with the light source.

Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being obvious over Torihara. Torihara fails to disclose the first lamp being disposed near a third edge and a second lamp being disposed near a fourth edge being diagonally opposite to the third edge. It would have been an obvious expedient to reverse the first and second lamps so that the first lamp resides at the third edge and the second lamp is positioned at the fourth edge being diagonally opposite to the third edge for accommodating a particular configuration of the backlight assembly *see In re Gazda, 219 F.2d 449, 104 USPQ 400*.

Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Torihara as applied to claims 1 and 11 above, and further in view of Nagatani (6,672,733). Torihara fails to disclose the centers of the lamps positioned in a same plane that is parallel to the light exiting face. Nagatani discloses in Figure 13 a first and second lamp 43G, 43RB wherein the centers thereof are positioned on a plane that is parallel to the light exiting face (upper horizontal face of light guide 1) which provides for a shorter vertical profile or width of the backlight assembly with the two lamps arranged in such parallel configuration. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to position the lamps of Torihara in a parallel configuration to shorten or reduce the vertical profile of the backlight assembly.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert May whose telephone number is (571) 272-5919. The examiner can normally be reached between 9 am– 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300 for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval PAIR system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RM

10/23/06



RENEE LUEBKE
PRIMARY EXAMINER